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Pellegrino

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[54] **VIBRATORY CONVEYOR HAVING SPRING-MOUNTING CROSS-MEMBER ASSEMBLIES**

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[58] Field of Search 198/759, 763,
198/766

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,165,197	1/1965	Allen et al.	198/763
4,272,366	6/1981	Dean et al.	198/763
4,313,535	2/1982	Carmichael	198/763

OTHER PUBLICATIONS

FMC Corporation. *The First Name in Food Handling Systems*, 1995, U.S.A.

FMC Corporation. *FMC Expresss Limited*, 1996, U.S.A.

FMC Corporation. *Syntron VF Vibrating Conveyor*, 1994, U.S.A.

FMC Corporation. *Link-Belt Model BL Vibrating Conveyors*, pp. 62-68, Not Dated.

Key Technology, Inc. *Iso-Flo "S" Conveyor*, Not Dated, pp. 84-85.

Key Technology, Inc. *Iso-Flo Smooth-Cycle Scale Feed Conveyor*, Not Dated, pp. 86-87.

Key Technology, Inc. *Iso-Flo Vibratory Conveyors*, Not Dated, pp. 48-49.

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[57] **ABSTRACT**

A base-excited vibratory conveyor includes an elongated conveyor trough, and an elongated support structure extending generally beneath the conveyor trough. A plurality of springs operatively interconnect the trough with the support structure, whereby vibratory drive of the support structure effects vibratory motion of the trough for conveyance of materials therealong. The support structure includes a plurality of cross-member assemblies which facilitate operative connection of the springs to the support structure, while enhancing the structural integrity of the support structure. The overall conveyor construction can be relatively lightweight in configuration, thus facilitating economical manufacture and operating efficiency.

9 Claims, 3 Drawing Sheets

